Research Proposal

India's Trade Potentiality under ASEAN-India FTA: An Empirical Analysis

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List of abbreviations

Abbreviation	Meaning
ASEAN	Association of South East Asian Nations
AIFTA	ASEAN-India Free Trade Agreement
HS	Harmonized System
UN Comtrade	United Nations Commodity Trade database
ITC	International Trade Centre

1. Introduction

The wave of regionalism in the form of regional trade agreements (RTAs) has been growing rapidly since 1990.India has been active in regional trade arrangements especially with Asian countries. For instance, India has engaged in negotiations on free trade areas with Sri Lanka, Canada, China, South-Asia, Singapore, Brazil, Argentina, Uruguay, Paraguay, Chile, Bhutan, South East Asian Nations and South African Custom Union (WTO, 2011).

Under India's Look East Policy, India has given due importance to East Asian Countries. India announced its "Look East" policy in 1991, which marked the beginning of active engagement with regional organizations with the ASEAN at the center, in an attempt to enhance India's relations and engagements with East Asian countries.

Association of South East Asian Nations (ASEAN), which is a regional grouping / geo-political and economic organization with 10 member countries, was formed in August 1967 by Indonesia, Malaysia, the Philippines, Singapore and Thailand. Since then, the membership has expanded to include Brunei Darussalam, Cambodia, the Lao People's Democratic Republic, Myanmar and Viet Nam. ASEAN's objectives are to accelerate economic growth, social progress and cultural development among its members, protect the peace and stability of the region, and provide opportunities for the member countries to discuss their differences peacefully.

India-ASEAN Relations

India became a dialogue partner across limited sectors in ASEAN in the year 1992; it achieved the status of full dialogue partnership in 1995. India was also given the opportunity to appear in the ASEAN Post Ministerial Conference (PMC) and became a full member of the ASEAN Regional Forum (ARF) in 1996. Membership in ARF gave India the chance to share a high table with big powers like the United States, China, and Russia, alongside ASEAN, on security issues in the Indo-Pacific region. India and ASEAN entered into a summit partnership in 2002 on the 10th anniversary of the Look East Policy.

Since then the ASEAN-India Summit has been held annually. India and ASEAN signed an initial Framework Agreement – the Comprehensive Economic Cooperation Agreement (CECA) – at the 2nd ASEAN-India Summit in October 2003with a view to providing an institutional framework that would enable economic cooperation to come

into effect. Negotiations on a trade in goods agreement between India and ASEAN were started in March 2004. The negotiations continued for six years and finally the India-ASEAN Free Trade Agreement in Goods (AIFTAG) was signed at the ASEAN Economic Ministers Meeting with India on August 13, 2009 in Bangkok, Thailand.

The AIFTAG came into force on 1January 2010 in the case of Malaysia, Singapore and Thailand; 1 June, 2010 for Vietnam; 1 September, 2010 for Myanmar; 1 October, 2010 for Indonesia; 1 November, 2010 for Brunei; 24 January, 2011 for Laos; 1 June, 2011 for Philippines; and 29 July, 2011 for Cambodia. At the 10th ASEAN-India Summit in New Delhi on December 20, 2012, India and ASEAN concluded negotiations for FTAs in services and investments. The ASEAN-India Free Trade Agreement (AIFTA) is an important milestone in India's economic relationship with ASEAN.

Since 1992 when India became a sectoral dialogue Partner of ASEAN, the collaboration has transcended the realm from economic cooperation to political, strategic and cultural dimensions. In 2012, during the annual India-ASEAN Summit, the relations were upgraded to a strategic partnership.

AIFTA could serve a springboard for expediting the India's economic engagement with ASEAN. The Act East Policy, with the ASEAN at the core, was evolved from the Look East Policy in November 2014 at the East Asia and India-Association of Southeast Asian Nations (ASEAN) summits in the Myanmar's capital Nay Pyi Taw. **Act East Policy** aims to revive and reinvigorate India's relations with ASEAN as well as expand the country's engagement beyond the region to encompass the Koreas in the North to Australia and New Zealand in the South, and from neighboring Bangladesh to Fiji and Pacific Island countries in the Far East.

The Objective of "Act East Policy" is to promote economic cooperation, cultural ties and develop strategic relationship with countries in the Asia-Pacific region through continuous engagement at bilateral, regional and multilateral levels.

Features of ASEAN-India FTA in Goods (AIFTAG)

Under the trade in goods agreement, the schedules of tariff commitments have been drawn up by all the member countries, indicating product-wise tariff concessions or no

concessions. The duties will come down from the most favoured nation (MFN) tariff rates applied in 2007

Tariff concessions are offered either through (1) tariff elimination or (2) tariff reduction. In line with this, the tariff commitments of India are divided in three categories:
(i) Tariff elimination:- Normal Track-1, Normal Track-2
(ii) Tariff reduction:- Sensitive Track and Highly Sensitive Track
(iii) Negative List/Exclusion List

The List of items for which tariffs are to be eliminated (including through phasing out periods) is called the **Normal Track**. Nearly 70% of India's tariff lines fall under Normal track-1 (elimination of tariffs through annual cuts between 1 Jan 2010 and 31 December 2013) and nearly 9% of India's tariff lines fall under normal track-2 (elimination of tariffs through annual cuts between 1 Jan 2010 and 31 December 2016)

In the **Sensitive Track**, India had to bring down tariffs on products with applied MFN tariffs above 5% to 5% by 2016. Applied MFN tariffs can be maintained at 5% for only 50 tariffs lines. Tariffs for the remaining products with applied MFN at 5% had to be reduced to 4.5% in January 2010, which further reduced to 4% by 2016. Applied MFN tariffs on 4% of the products in the Sensitive track will drop to zero by 2019. 11.1% of its total tariff lines come under the Sensitive track.

Apart from a Sensitive Track, there is a list of **Special Products**, for which tariffs will be reduced at a much slower pace than the Normal Track and Sensitive Track. It is also called Highly Sensitive List for which tariffs are to be reduced to certain pre-determined levels. India's Schedule of Tariff Commitments consists of 40 items placed under Special Products. These items belong to 5 products namely Crude Palm Oil (CPO), Refined Palm Oil (RPO), coffee, pepper and tea and it only constitute 0.1 % of its total tariff lines.

Considering domestic sensitivities, India has excluded 489 tariff lines(HS6 Digit level) from the list of tariff concessions. It is called an **Exclusion List** of products on which no tariff concessions or any other form of barrier reduction have been made by individual parties. Exclusion List constitutes 9.8% of India's total tariff lines. ASEAN countries have also maintained country wise exclusion list from the proposed tariff concessions or eliminations.

The Agreement will eliminate tariffs on 80% of the tariff lines accounting for 75% of the trade in a gradual manner. India-ASEAN negotiations were concluded using lists of tariff lines at HS 6- digit level. Thereafter, all Parties agreed to convert the offers to their respective national levels which, for instance, is 8-digit for India, 9-digit for Malaysia, 10-digit for Indonesia, etc. Hence, the offers are at 8/9/10-digit levels.

India's trade with ASEAN

India shares strong bilateral relations with each of the 10 ASEAN member countries. AIFTA may further boost bilateral trade between the two regions given the trade complementarities and linkages (GVCs). Between 2009 and 2017, ASEAN-India bilateral trade grew at an annual rate of 5.69 per cent. ASEAN is a major trading partner of India, having bilateral trade between India and ASEAN worth almost US$ 58.97 billion, constituting 10.63 per cent of India's global trade in 2017.

India's trade with ASEAN is mainly concentrated in Singapore, Indonesia, Malaysia and Thailand. Among them, Singapore is the largest destination for Indian exports (30.21% of total exports to ASEAN in 2017) while the largest source of imports for India is Indonesia (35.83% of India's total imports from ASEAN in 2017)

The main exports by India to the ASEAN region include Petroleum oils, meat, fish, iron and steel, diamonds, medicaments, while the imports by India from the ASEAN region include mineral fuels, animal or vegetable fats, electrical equipment and machinery, organic chemicals, copper wire, copper ores, rubber products.

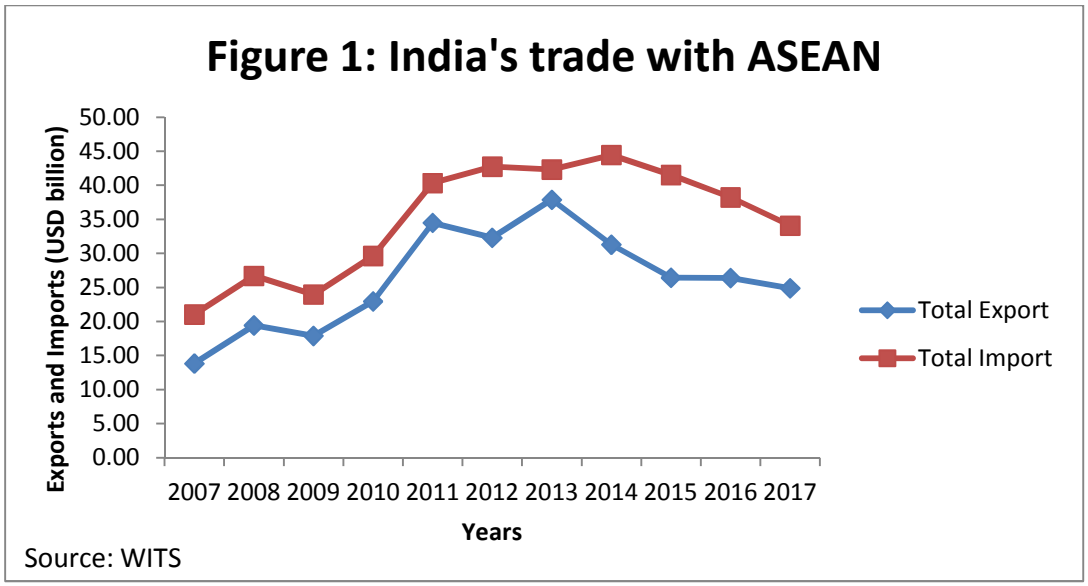

Figure 1 shows India's total exports to and total imports from ASEAN for the period 2007 to 2017 on HS code 2002 classification. The data for figure 1 is given in the Annexure 1.

2. Review of Literature

Veeramani and Saini (2012) carried out a quantitative assessment of the impact of AIFTA on selected plantation commodities, i.e., coffee, tea and pepper, in India. A partial equilibrium modeling approach (SMART and gravity models) was used to simulate the likely increase in imports of the plantation commodities by India under the proposed tariff reduction schedules of the India-ASEAN FTA. The results suggested that AIFTA would lead to a significant increase in such imports by India, driven mainly by trade creation rather than trade diversion. The analysis showed that the proposed tariff reductions under the India-ASEAN trade agreement might lead to a significant loss of tariff revenue for the Government of India. However, the gain in consumer surplus (due to falls in domestic prices and the consequent reduction in dead-weight loss) would outweigh the tariff revenue loss, leading to a net welfare gain. However, the authors only discussed and analysed the likely impact and welfare implications of the India-ASEAN FTA for India for some selected plantation commodities only, using a partial equilibrium model to do so.

Francis (2011) analyzed the pattern and composition of India's trade with the major ASEAN countries and India's tariff reduction scenario in different sectors using the data for the period 1995-2008. It was observed that under AIFTAG, the trade bloc's members will have increased access to the Indian market for semi-processed and processed agricultural products and close substitutes, which could adversely affect the country's agricultural sector. Indian small and medium enterprises in food and other agriculture-related products, some intermediate goods, and light manufacturing products are also likely to suffer.

Bhattacharyya and Mandal (2010) analysed the likely effect of the AIFTAG on India's balance of trade using gravity model framework and estimating tariff and import elasticity. It is found that the impact of the agreement on India's balance of trade is expected to be negative. India's imports will rise significantly, however there will be no commensurate rise in India's export to these countries except to Indonesia.

Ahmed (2010) used GTAP and SMART models to analyze the impact of the AIFTAG with complete tariff elimination with regard to bilateral trade between India and ASEAN. In the case of India, the processed food products, grain crops, textiles and wearing apparel, light manufacturing goods and heavy manufacturing sectors were likely to be significantly affected. The ASEAN countries' exports of processed food items, and agricultural and fisheries products were likely to increase, which could have an adverse impact on employment and wages among the Indian working class. The AIFTAG would adversely affect India's trade balance and cause revenue losses for the Government.

Pal and Dasgupta (2009) studied the tariff schedule of India and made a preliminary evaluation of the India-ASEAN FTA. By analysing India's commitment schedule, and by studying the production structure of the ASEAN members, the present study concluded that sectors such as tea, spices, coffee and rubber will be negatively affected. The marine products, textiles and garments, and auto components industries are also likely to face increased competition. The study points out that the net effect of the trade agreement crucially depends on the ability of the Government of India to redistribute some of the increased wealth gained from this trade agreement to those industries negatively affected by the agreement.

Harilal (2009) assessed the likely impact of AIFTAG on the economy of Kerala in southern India. It is concluded that AIFTAG would be detrimental to the interests of tropical commodity producers in Kerala. This is due to the competitive nature of the production structure of Kerala vis-à-vis the ASEAN members. Free trade in tropical commodities under the provision of AIFTAG is likely to add to the already existing problem of severe price instability with regard to these products, in addition to pushing down the share of the producers in the value chain.

The attempt of this study is to fill the gap in the literature as there is hardly any study which calculates trade indices at the disaggregated level for each of the ASEAN member countries with India and compare the same at three points of time 2007, 2012 and 2017. The study will also attempt to uncover the causes of changes in trade pattern and composition.

3. Research Objectives

Against the above backdrop, the main aim of this study is to examine India's trade prospect with ASEAN countries, particularly in merchandise trade. The specific objectives of the study are:

a) To study the pattern and nature of existing bilateral trade between India and ASEAN members.
b) To identify the factors behind change in trade composition over the period 2007-2018 and to identify the new products which have been added during this period.
c) To assess trade potentiality of India in the ASEAN market given the fact that both regions are involved in a FTA.

The analysis of existing bilateral trade relationship between India and ASEAN countries can shed light on India's likely benefits from further trade liberalization under AIFTAG.

4. Hypotheses

H_O: The trade growth remains the same over the years as a result of trade liberalisation under AIFTA.

H_1: Trade liberalisation will boost the trade growth of India with ASEAN members over the years.

5. Database and Methodology

The study will be based on secondary data from various sources of World Bank and UN such as The United Nations Commodity Trade database (UN Comtrade) accessible through World Integrated Trade Solution (WITS), International Trade Centre (ITC) trade map based on Harmonized System (HS) code classification. The underlying methodological approach to analyse the trends, prospects and future scope of India-ASEAN bilateral trade will be based on country-wise analysis, that is, data of India's trade with each of the ASEAN members will be studied separately.

To pursue the **first objective**, the following framework is adopted. For instance, to understand India-Thailand bilateral trade relationship, 10 major products (which has high share in total exports to/imports from ASEAN) will be identified at 6-digit/8-digit HS Code from the list of India's exports to Thailand and India's imports from Thailand for the purpose of calculating trade indices. The time series data will be used to calculate the following four indices from year 2007 to 2017.

(i) Bilateral Revealed Comparative Advantage (BRCA): It measures the competitiveness of the product in the country's export basket while comparing it with share of the product to the world/region market. It is also called the **Balassa index**, introduced by BélaBalassa and Mark Noland (1965).The following formula would calculate comparative advantage of product *i* of country j into country k.

$$BRCA = \frac{x_{jk}^{i} / X_{jk}}{x_{Rk}^{i} / X_{Rk}}$$

Where,

$x_{jk}^{i} = Exports\ of\ country\ j\ to\ country\ k\ of\ product\ i$

$X_{jk} = Total\ exports\ from\ country\ j\ to\ country\ k$

$x_{Rk}^{i} = Exports\ of\ ASEAN\ region(R)\ to\ country\ k\ of\ product\ i$

$X_{Rk} = \ Total\ ASEAN\ exports\ to\ country\ k$

The numerator is the share of good i in the exports of country j, while the denominator is the share of good i in the exports of the ASEAN region to country k. BRCA takes a value between 0 and +∞. A country is said to have a revealed comparative advantage if the value exceeds unity.

(ii) Trade Complementarity Index (TCI): It measures the degree to which the export pattern of one country matches the import pattern of its trading patter. A high degree of complementarity is assumed to indicate more favorable prospects for a successful trade arrangement. Changes over time may tell us whether the trade profiles are becoming more or less compatible. The formula given by United Nations Economic and Social Commission for Asia and Pacific (UNESCAP, 2016) to calculate TCI is:

$$TCI_{ik} = 100 - \sum(\left|M_{ik} - X_{ij}\right|/2)$$

Where,

$TCI_{ik} = Trade\ complimentarity\ Index\ between\ country\ j\ and\ k$

$M_{ik} = Share of good\ i\ in\ all\ imports\ of country\ k$

$X_{ij} = Share\ of good\ i\ in\ all\ exports\ of\ \ country\ j.$

The value of TCI lies between 0 and 100, with zero indicating no overlap and 100 indicating a perfect match in the import/export pattern.

(iii)Trade Intensity Index (TII): The changing trends in India-ASEAN bilateral trade relations can also be identified with the help of trade intensity between both countries.

The trade intensity index developed by K. Kojima (Kojima, 1964)measures the intensity of trade relationship between any two countries, keeping the relative importance of trade relation of the respective countries with the world (see Frankel 1997, Anderson 1983, or Drysdale and Garnaut 1982 for illustrative applications).The following formula is used to compute the trade intensity:

$$TII_{jk}^{i} = \frac{\left(X_{jk}^{i}/X_{jw}^{i}\right)}{\left(X_{wk}^{i}/X_{wt}^{i}\right)}$$

Where,

$X_{jk}^{i} = Country^{'}j's\ exports\ to\ country\ k of\ product\ i$

$X_{jw}^{i} = Country^{'}j's\ exports\ to\ world\ or\ region\ of\ product\ i$

$X_{wk}^{i} = World\ exports\ to\ country\ k\ of\ product\ i$

$X_{wt}^{i} = Total\ world\ exports\ of\ product\ i$

The statistic tells us whether or not a region exports more (as a percentage) to a given destination than the world does on average. The trade intensity statistic is the ratio of two export shares. The numerator is the share of the destination of interest in the exports of the country j under study. The denominator is the share of the destination of interest in the exports of the world as a whole. TII takes a value between 0 and +∞. Values greater than 1 indicate an 'intense' trade relationship.

(iv)Regional Orientation Index (ROI): The regional orientation index tells us whether exports of a particular product from the country under study to a given destination are greater than exports of the same product to other destinations.

$$ROI = \frac{\left(\sum_k x_{jk}^{i} / \sum_d X_{jk}\right)}{\left(\sum_w x_{jw}^{i} / \sum_w X_{jw}\right)}$$

Where,

$x_{jk}^{i} = exports\ of\ product\ i\ from\ country\ j\ to\ region\ k$

$X_{jk} = Total\ exports\ from\ country\ j\ to\ region\ k$

$x_{jw}^{i} = exports\ of\ product\ i\ from\ country\ j\ to\ w(set\ of\ all\ countries\ not\ in\ the\ bloc)$

$X_{jw} = Total\ exports\ from\ countrys\ to\ w$

The index is the ratio of two shares. The numerator is the share of a country's exports of a given product to the region of interest in total exports to the region. The denominator is the share of exports of the product to other countries in total exports to other countries. It takes a value between 0 and +∞. A value greater than unity implies a regional bias in exports.

In order to achieve the **second objective**, the following approach will be followed. The descriptive analysis of bilateral trade data of India and ASEAN members, for instance India's exports to Thailand and India's imports from Thailand, over last 10 years will give the insights about the trade pattern and trade composition during the study period.

To achieve the **third objective**, the following framework will be adopted to assess the trade potentiality of India in ASEAN member countries. For instance, to assess India's trade potential in Thailand i.e. to identify the products which India can potentially export to Thailand.

Step I: Identification of India's exported products to the World and Thailand's imports from the World.
Step II: Common products from the above two list will be identified. These are the products which have high export potential from India and import demand in Thailand.
Step III: Identification of existing exported products to Thailand. By excluding these products from the list prepared in Step II, provides the list of new products that can potentially be exported to Thailand.

6. Tentative Chapter Scheme

1. Introduction

2. Review of Literature

3. India-ASEAN Trade: Nature, Pattern and Composition

4. India's Trade Potentiality in ASEAN market

5. Summary, Conclusion and Policy Implications

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Annexure 1

	Table 1: India's Export to ASEAN Members (USD billion)										
Country	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Brunei	0.01	0.02	0.03	0.02	0.87	0.03	0.04	0.04	0.03	0.04	0.04
Indonesia	1.88	2.66	3.00	4.56	6.40	6.02	5.56	4.44	2.87	3.13	2.75
Cambodia	0.04	0.05	0.04	0.06	0.09	0.11	0.14	0.15	0.15	0.11	0.09
Lao PDR	0.00	0.00	0.03	0.01	0.01	0.03	0.06	0.06	0.05	0.02	0.02
Myanmar	0.16	0.24	0.21	0.27	0.46	0.53	0.74	0.87	0.86	1.14	0.69
Malaysia	1.85	3.03	3.52	3.56	3.80	3.79	5.50	4.64	4.89	4.19	3.93
Philippines	0.57	0.76	0.70	0.80	1.01	1.12	1.47	1.44	1.30	1.47	1.20
Singapore	6.39	8.85	6.83	9.07	15.63	13.55	14.19	9.68	7.81	7.35	7.52
Thailand	1.67	2.01	1.71	2.14	2.77	3.45	4.20	3.44	3.11	2.96	2.59
Vietnam	1.24	1.81	1.83	2.48	3.47	3.66	5.99	6.53	5.36	5.96	6.08
Total Export	**13.82**	**19.43**	**17.90**	**22.96**	**34.50**	**32.29**	**37.89**	**31.29**	**26.43**	**26.38**	**24.89**
India's global export	145.90	181.86	176.77	220.41	301.48	289.56	336.61	317.54	264.38	260.33	216.91
ASEAN's share in India's global export (percent)	9.48	10.69	10.13	10.42	11.44	11.15	11.25	9.86	10.00	10.13	11.47

Source: WITS

	Table 2: India's Import to ASEAN Members (USD billion)										
Country	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Brunei	0.23	0.33	0.49	0.21	0.70	0.94	0.77	0.94	0.61	0.46	0.35
Indonesia	4.84	6.43	7.60	9.70	13.96	14.07	14.98	15.18	13.90	12.19	12.21
Cambodia	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.04	0.04	0.04
Lao PDR	0.00	0.00	0.00	0.02	0.07	0.14	0.11	0.06	0.14	0.17	0.15
Myanmar	0.81	0.91	1.18	1.12	1.26	1.35	1.37	1.39	1.02	1.08	0.58
Malaysia	5.73	7.46	4.99	6.00	9.11	10.49	9.33	10.93	9.56	8.65	6.57
Philippines	0.17	0.23	0.34	0.39	0.45	0.49	0.41	0.40	0.52	0.48	0.58
Singapore	6.90	8.30	6.14	7.26	8.16	7.80	7.03	7.07	7.40	6.72	5.26
Thailand	2.19	2.66	2.78	3.94	5.06	5.50	5.48	5.68	5.65	5.32	5.06
Vietnam	0.15	0.37	0.44	0.99	1.55	1.95	2.83	2.78	2.68	3.11	3.29
Total Imports	**21.03**	**26.70**	**23.97**	**29.64**	**40.33**	**42.74**	**42.31**	**44.46**	**41.52**	**38.22**	**34.08**
India's global import	218.65	315.71	266.40	350.03	462.40	488.98	466.05	459.37	390.74	356.70	337.41
ASEAN's share in India's global import (percent)	9.62	8.46	9.00	8.47	8.72	8.74	9.08	9.68	10.62	10.72	10.10

Source: WITS